

2011-2012 Weekly Field Reports

Copacabana, King George Island

Volume 12
January 2, 2012

Science Report:

1. **Penguins:** Penguins: 96% of our Adélie and 89% of our gentoo penguin study nests that are currently active have crèched chicks. 84% of our Adélie and 48% of our gentoo penguin known-age study nests that we have followed since the start of the season have crèched chicks.

We conducted our Adélie penguin chick census at Point Thomas on Saturday (1/7). To get a general idea of productivity, we count the number of chicks in each colony one week after peak crèche. By comparing the number of chicks crèched to the number of nests initiated, we can determine how many chicks fledged per nest, which is the measure of breeding success (little to no losses occur between crèching & fledging). 1.1 chicks fledged per nest at our Point Thomas colonies this season, the highest success since 2006-07 and slightly higher than the 20-year average of 1.0 chick fledged per nest.

We conducted our third Adélie penguin diet sample on Monday (1/2). In two of the five samples we found otoliths, and in one sample trace amounts of fish. Otoliths are the ear bones from fish and can be used to identify the species of fish found in the diet based on each species' uniquely shaped otoliths. The krill (*Euphausia superba*) in the samples continued to consist of unusually large proportions of juveniles, but less than the previous two weeks. Two of the five samples were 38% juveniles and one was 34% juveniles. The adult krill size ranged from 36-56 mm and approximately 61% were males.

We did our first chick-rearing gentoo penguin diet sample on Tuesday (1/3). Similar to the Adélie penguin diets, we saw unusually large proportions of juvenile krill; of the five birds we sampled, two were 34% juveniles. One sample had small amounts of fish and several otoliths. The adult krill size ranged from 36-55 mm with a nearly equal ratio of male to female.

We have been retrieving the satellite transmitters (PTTs) that were put on Adélie penguins last week. The downloaded data from these PTTs show that the penguins are going a short distance out of Admiralty Bay into the Bransfield Strait to forage. We deployed 5 more PTTs on Adélie penguins on Wednesday (1/4).

13 more geolocator (GLS) tags were attached to breeding Adélie penguins in one of our study sites on Tuesday (1/3) and Wednesday (1/4).

2. **Skuas:** 17% of the 161 currently active skua territories have nests with eggs and 16% have nests with chicks. We banded our first brown skua chicks at Point Thomas this week.



2011-2012 Weekly Field Reports

Copacabana, King George Island

Volume 12
January 2, 2012

3. **Giant Petrels:** This week we completed our giant petrel resighting effort at Copa and Point Thomas until we begin chick banding in late February. The first chicks were seen at Point Thomas on Sunday (1/8).
4. **Seals & Whales:** The census from Copa to Patelnia on Thursday (1/5) resulted in 531 elephant seals (13 males, 5 weaners, 513 juvenile/unknowns) and one fur seal. Our Copa to Pt. Thomas census found 20 elephant seals (all juvenile/unknowns).

Humpback whale activity continued this week with several sightings of 1-2 whales at a time entering and exiting the bay.

Weekly Weather

The calm weather continued for most of this week with temperatures between 34-37°F and small amounts of snow and rain on Monday (1/2) and Friday (1/6). Winds picked up on Friday to 15-20 mph, lasting until early afternoon on Saturday. Sunday was relatively calm and sunny.

The 2011-12 Copa Field Team
Penny Chilton, Field Team Leader
Brette Soucie
Matt Henschen

